

Remarks

Claims 1-28 are pending in the present application. Claims 1-28 have been rejected. By the present amendment, claims 1, 6, 7, 11, 22 and 24 are amended and claims 5, 9, 10 and 23 are canceled.

Correction to the Title

In the Office Action, the Examiner noted a misspelling in the Title. In accordance with the present Amendment, the term "ANALYSING" has been replaced with -- ANALYZING --, in accordance with the Examiner's suggestion. No new matter has been added.

Objection to the Drawings

Also in the Office Action, the drawings were objected to under 37 CFR 1.83(a). It is asserted the "connecting member" recited in claim 9 must be shown or the feature canceled from the claim. Claim 9 is canceled herein. Claim 1 as amended herein recites the electrode layers comprise a connecting section extending beyond an adjacent transport layer. Such connecting sections or connecting strips 38, 40 (see para. [0031] of the instant application) are shown in the original Fig. 2. Applicants submit that the drawings are in compliance with the statute and respectfully request that the objection be removed.

Objection to the Abstract of the Disclosure

Also in the Office Action, the Abstract of the Disclosure is objected to because of grammatical errors. By the present amendment, and in accordance with the Examiner's suggestions, the term "analysing" in line 1 has been changed to -- analyzing -- and the

Serial No. 10/628,042
Docket No. WP 21084 US

phrase "flat material" in line 2 has been changed to -- flat materials --. No new matter has been added. Applicants respectfully request that the objection be removed.

Formal Claim Objections

Also in the Office Action, claims 1, 22 and 24 were objected to due to the misspelling of "analysing". These claims are amended herein, wherein each the term "analysing" has been replaced with -- analyzing --. Claim 1 was also objected to due to the recitation of "flat material", which is replaced herein with -- flat materials -- in accordance with the Examiner's suggestion. No new matter has been added. Applicants respectfully request that the objection be removed.

Claim Rejections Pursuant to 35 U.S.C. §112, Second Paragraph

Also in the Office Action, claims 11-13 and 23 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 23 is canceled herein, thereby mooting the rejection. With respect to claims 11-13, the Examiner asserted the term "foil mask" does not appear to be a term that is well-known in the art, and the Specification does not provide a clear definition. The term "mask" is however well-known in the relevant art, such as, for example, masks for producing etched structures. The term "foil mask" is self-defining – a mask that consists of a foil material as a separate layer (see, further, para. [0030] of the instant specification). In view of the instant amendment, applicants submit that the claims are in compliance with the statute and respectfully request that the rejection be withdrawn.

Rejection Pursuant to 35 U.S.C. §102

Also in the Office Action, claims 1-4, 10, 15-17, 19-22 and 24 are rejected under 35 U.S.C. §102(b) as being anticipated by Ekström et al. (U.S. Patent No. 5,376,252).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Claims 5, 9 and 10 are canceled herein and their subject matter has been incorporated into claim 1, which now recites, *inter alia*, a device for analyzing a biological liquid sample comprising a composite body of a plurality of layers of flat materials defining at least one sample channel for transporting the sample liquid from an application site to a measuring site, wherein the plurality of layers of flat material comprise a plurality of transport layers arranged in a stack-like manner between support layers, the sides of the support layers that face the transport layers are coated with an electrode layer comprising an electrically conductive material, and the support layers are displaced relative to one another in a step-like manner, such that the electrode layers comprise a connecting section extending beyond an adjacent transport layer.

Ekström et.al. do not disclose any electrodes in connection with the "multi-story" structure, but rather focus on optical windows (see col. 9, lines 39-40). Claims 2-4, 15-17, 19-22 and 24 include all of the limitations of the amended base claim from which each depends. In view of the present amendment, Ekström et al. cannot be relied upon in support of the instant rejection. Accordingly, applicants respectfully request that the rejection be withdrawn.

Rejections Pursuant to 35 U.S.C. §103

Also in the Office Action, claims 1-3, 5, 6, 9, 19, 24 and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Zhao et al. (U.S. Pat. Pub. No. 2002/0079219 A1) in view of Ekström et al. The Examiner asserted in support of the instant rejection that although the device of Zhao et al. differs from the claimed device in that it lacks a plurality of stacked layers, in light of the disclosure of Ekström et al., it would have been obvious to one of ordinary skill in the art to stack the layers of the microfluidic device disclosed by Zhao et al. to form multi-storied microfluidic channel networks. Claims 7 and 8 are rejected under §103(a) as being unpatentable over Zhao

et al. in view of Ekström et al. as applied to claims 1-3, 5, 6, 9, 19, 24 and 26, and further in view of Akridge et al. (U.S. Pat. No. 5,141,614). Claims 11 and 25 are rejected under §103(a) as being unpatentable over Zhao et al. in view of Ekström et al. as applied to claims 1-3, 5, 6, 9, 19, 24 and 26, and further in view of Lee et al. (U.S. Pat. Pub. No. 2003/0141189 A1). Claims 12, 13, 27 and 28 are rejected under §103(a) as being unpatentable over Zhao et al. in view of Ekström et al. and Lee et al. as applied to claims 11 and 25, and further in view of Oloman et al. (U.S. Pat. No. 4,118,305). Claim 14 is rejected under §103(a) as being unpatentable over Zhao et al. in view of Ekström et al. as applied to claims 1-3, 5, 6, 9, 19, 24 and 26, and further in view of Stapleton et al. (U.S. Pat. No. 5,922,604). And claim 18 was rejected under §103(a) as being unpatentable over Zhao et al. in view of Ekström et al. as applied to claims 1-3, 5, 6, 9, 19, 24 and 26, and further in view of Weigl et al. (U.S. Pat. Pub. No. 2001/0027745 A1).

As noted above, claims 5, 9 and 10 are canceled herein and their subject matter has been incorporated into claim 1. Zhao et al. disclose only one substrate 18 as a transport layer, with integrated electrodes 28 that have leads only on one side of the single layer substrate. While in this basic configuration a conventional connection like on a planar circuit board may be possible, the connection however fails in a stacked configuration where both sides of each support layer are connected. Ekström et al. however do not fulfill the deficiencies of Zhao, as Ekström et al. do not disclose any step-like sandwich structure, but rather an overlapping of the uniformly stacked base layers 2 (see, e.g., Fig. 7A). For these reasons, applicants submit that Zhao et al. cannot be relied upon in support of the instant rejection, and Ekström et al. do not fulfill the deficiencies of Zhao et al. These references, either alone or in combination, do not teach or suggest the subject matter of claim 1 as amended herein. Claims 2-4, 6-8, 11-22 and 24-28 contain all of the limitations of the base claim from which they depend. Applicants submit that the Examiner has not presented a *prima facie* case of obviousness and respectfully request that the rejection be withdrawn.

Serial No. 10/628,042
Docket No. WP 21084 US

German Pat. No. DE 199 33 458 A was not acknowledged by the Examiner as being considered due to it not being in the English language. Accordingly, a Supplemental Information Disclosure Statement is submitted herewith that cites U.S. Pat. No. 7,005,109 – the English language equivalent. The consideration of this reference is respectfully requested.

Serial No. 10/628,042
Docket No. WP 21084 US

Conclusion

Applicants have filed a complete response to the outstanding Office Action and respectfully submit that, in view of the above amendments and remarks, the application is in condition for allowance. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,

ROCHE DIAGNOSTICS OPERATIONS, INC.

/Brian L. Smiler/

By _____

Brian L. Smiler
Reg. No. 46,458

9115 Hague Rd., Bldg. D
Indianapolis, IN 46250-0457
Telephone No.: (317) 521-3295
Facsimile No.: (317) 521-2883
E-mail: brian.smiler@roche.com
BLS/